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UNITED STATES DISTRICT COURT

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DISTRICT OF NEVADA

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17   ORACLE USA, INC., a Colorado corporation;
     ORACLE AMERICA, INC., a Delaware
18   corporation; and ORACLE INTERNATIONAL
     CORPORATION, a California corporation,

19   Plaintiffs,

20   v.

21   RIMINI STREET, INC., a Nevada corporation;
     SETH RAVIN, an individual,

22   Defendants.

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Case No 2:10-cv-0106-LRH-PAL

DECLARATION OF RICHARD CHENG

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1   I, Richard Cheng, hereby declare:

2   1.   The facts stated in this declaration are based upon my personal knowledge, except

3   where stated to be on information and belief, and as to those, I believe it to be true. If called as a

4   witness, I could and would competently testify to the matters set forth herein

5   2.   I am employed as the Senior Manager of Computer Forensics and Electronic

6   Discovery at SFL Data, an electronic discovery, computer forensics, and litigation support

7   consulting firm located in San Francisco, California. Prior to joining SFL Data, I worked as a

8   Senior Manager of Computer Forensics and Electronic Discovery at Digital Mountain, a

9   litigation support and electronic discovery firm in Foster City, California, and as a Consultant in

10   the High-Tech Investigations and Information Technology Consulting Group at Kroll Associates,

11   a security consulting, investigative and intelligence firm in San Francisco, California. I have

12   attained the professional designations of Certified Information Systems Security Professional and

13   Certified Information Systems Auditor. I hold a Masters degree in Forensic Science and a

14   professional certificate in Forensic Computer Investigation.

15   3.   I regularly perform forensic imaging and analysis of computer hard drives and

16   other electronic storage media. In the past five years, I have conducted hundreds of different

17   computer forensics investigations and electronic discovery data collections (often involving

18   numerous computers in a single case). I have provided reports and executed affidavits and

19   declarations describing my computer forensic analysis. Attached hereto as Exhibit 1 is my

20   professional biography which truly and accurately summarizes my education, experience and

21   credentials as a computer forensics examiner.

22   4.   I am informed and believe that it has been asserted in this litigation that forensic

23   imaging is cost prohibitive and that such imaging would cost up to $1,200 per computer.

24   5.   I can attest that forensic imaging can commonly be completed for significantly

25   less cost than this. Such images can be acquired in the forensic laboratory environment or they

26   can be acquired onsite at the business premises of the computers' users. They can also be

27   acquired remotely where the computer forensic examiner – located in the forensic laboratory

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DECLARATION OF RICHARD CHENG

1 environment– takes remote control of the computers – located at the premises of the computers'

2 users. I have performed numerous such onsite acquisitions of forensic images.

3   6.   Forensic images are typically created by removing the hard drive of the

4 evidentiary computer, attaching it to a separate examination computer via a write-blocking

5 device that prevents modification from being made to the original hard drive, and then writing

6 the image to a forensically-prepared blank hard drive. Using a forensic program such as

7 Guidance Software's EnCase or Access Data's Forensic Toolkit Imager an image of the original

8 hard drive can then be acquired. Alternatively or in addition, images can be acquired by using

9 specialized, standalone hardware "disk duplicators" which perform the same function as the

10 examination computer and write-blocking device with regards to image acquisitions.

11   7.   While different variables will impact the overall speed of the forensic imaging

12 process, it is reasonable to estimate that the images can be created at a rate of 1GB to 2GB per

13 minute. Modern standalone hardware disk duplicators can often create forensic images at speeds

14 approaching 4GB to 5GB per minute. Moreover, a competent forensic examiner can commonly

15 acquire images of two evidentiary computers at the same time.

16   8.   In situations where the evidentiary computers are geographically distant from the

17 examiner but do have connections to the Internet, the imaging process can be performed

18 remotely. In this scenario, an encrypted drive which contains the image acquisition program as

19 well as sufficient space to hold an image of the original hard drive is sent to a computer's user.

20 At a pre-arranged time, the examiner then sends a request to remotely control the user's

21 computer. After granting the request, the user then connects the encrypted drive to the computer.

22 Once connected and mounted, the examiner can then decrypt the encrypted drive and acquire an

23 image of the original hard drive using the forensic image acquisition program. Upon completion

24 of the image acquisition, the examiner will dismount the drive and return control of the computer

25 to the user. Finally, the user will then return the encrypted drive to the examiner.

26   9.   When we are able to create forensic images in our lab, my firm often charges a

27 flat fee of $500 per computer, plus approximately $200 for expenses to cover the price of hard

28 drives that are used to store both the working and backup copies of the forensic images. When

DECLARATION OF RICHARD CHENG

1   imaging multiple computers, expenses can be minimized by storing multiple forensic images on

2   a single hard drive.

3   10.   When acquiring forensic images onsite at the business premises of our clients or

4   other entities, my firm normally charges $250 per hour for electronic discovery data collection

5   projects. We also honor a daily price cap of $2,000 for a 10 hour day, meaning the last two hours

6   of the day are free. Most average business computers take 1 – 2 hours to image. As the examiner

7   can image two evidence computers at a time, it is reasonable to estimate that a single examiner

8   can complete approximately 10 forensic images in a single day.

9   11.   When we acquire forensic images remotely, the image acquisition process is

10   typically started at the close of business and allowed to run overnight. The total time spent by an

11   examiner to perform the collection is typically 1 – 2 hours per computer image. A single

12   examiner can typically manage 10 such collections at a time.

13   12.   So, the total cost to acquire the images of 50 computers ranges from

14   approximately $10,000 – $25,000. The exact cost would be dependent on the number of

15   computers to be imaged in the lab, the number to be imaged on-site at a business premises, and

16   the number to be collected remotely.

17   13.   I declare under penalty of perjury under the laws of the United States that the

18   foregoing is true and correct to the best of my knowledge, and that this declaration was executed

19   on August 23, 2010.

20   _____

21   Richard Cheng

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DECLARATION OF RICHARD CHENG